

**GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA**

UNSTARRED QUESTION NO:682
ANSWERED ON:08.07.2009
TSUNAMI WARNING CENTRES
Swamygowda Shri N Cheluvarama Swamy

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether a Tsunami Early Warning Centre has been set up in Andhra Pradesh;
- (b) if so, the details thereof;
- (c) whether the Government has proposed/proposes to set up similar Centres at other places in the country including Karnataka; and
- (d) if so, the details thereof?

Answer

MINISTER OF THE STATE (INDEPENDENT CHARGE) IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, MINISTER OF THE STATE IN THE MINISTRY OF EARTH SCIENCES, MINISTER OF THE STATE IN THE MINISTRY OF PRIME MINISTER'S OFFICE, MINISTER OF THE STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND MINISTER OF THE STATE IN THE MINISTRY OF PARLIMANTARY AFFAIRS (SHRI PRITHVIRAJ CHAVAN)

(a) Yes, Sir.

(b) The Government has established a state-of-the-art Tsunami Warning Centre at Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, Andhra Pradesh. This centre has been made fully operational since September 2007 and is equipped to provide timely tsunami warnings for India and the countries in the Indian Ocean region on 24 x7 basis. The Indian Tsunami Warning System comprises various real time monitoring networks, seismic monitoring network; bottom pressure recorders; tide gauges etc., to monitor tsunami waves. These real time observing networks are backed up by a hierarchical database of pre-run tsunami travel time and inundation scenarios; robust standard operational procedures (SOPs) and communication facilities for generation and dissemination of different categories of warnings. The three critical steps involved in generation of tsunami warnings include

- (i) detection and estimation of earthquake parameters;
- (ii) estimation of travel time and run-up height of tsunami;
- (iii) confirmation of tsunami by monitoring sea level.

(c) No, Sir.

(d) Does not arise